

What is claimed is:

1. A method of assigning identifying indicia to objects in multidimensional space comprising the steps of:
 - sorting objects initially according to a first dimension of their location in multidimensional space;
 - grouping subsets of objects according to ambiguities in the objects; and
 - ordering ambiguous objects in subsets according to other dimensions of the multidimensional space.
2. The method according to claim 1 wherein said grouping step includes the step of:
 - determining ambiguities among coordinate values of their location in the multidimensional space according to whether separation of objects in a dimension is less than a predetermined threshold value.
3. The method according to claim 2 wherein said determining step includes the step of:
 - ascertaining a predetermined threshold value based on known errors of position measurements.

1 4. The method according to claim 1 including an initial step of:
2 selecting as the first dimension of a multidimensional coordinate system that
3 dimension along which separation of objects exhibits the greatest dispersion.

1 5. The method according to claim 1 wherein said grouping steps includes the step of:
2 determining ambiguities among coordinate values according to whether separation of
3 targets is less than any of a plurality of predetermined threshold values.

1 6. The method according to claim 2 wherein said determining step includes the step of:
2 ascertaining a predetermined threshold value based on a maximum rate of change of
3 position of one target with respect to any other.

1 7. The method according to claim 5 wherein said determining step includes the steps of:
2 ascertaining one of said predetermined threshold values based on maximum rate of
3 change of position of one object with respect to any other; and
4 ascertaining another one of said predetermined threshold values based on the random
5 errors of measurements in positions of the objects.

1 8. A method of sorting indicia corresponding to objects moving through a
2 multidimensional space comprising the steps of:
3 scanning the multidimensional space to detect positions of objects therein;
4 assigning unique indicia to each detected object;
5 sorting assigned indicia along one coordinate axis of the multidimensional space;
6 grouping into subsets any indicia exhibiting an ambiguity along the coordinate axis;
7 and
8 ordering indicia in subsets according to other coordinate axes of the
9 multidimensional space.